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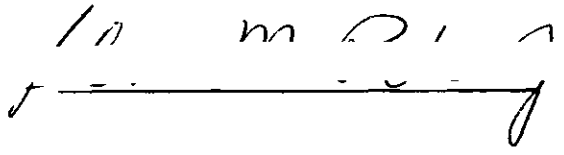

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# LEADER ATTITUDES, LEADER BEHAVIOR, AND SITUATIONAL VARIABLES

A THESIS

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# SUMMARY

Previous research on leadership effectiveness has shown inconsistent relationships between measures of leader behavior and performance criteria. It appears that the difficulty in determining these relationships may depend upon a lack of agreement about the important dimensions of leadership, a failure to account for the influence of the situation in which the leader finds himself, and a need to determine who in the organization is best able to provide an accurate description of the leader's behavior. It is still unknown what attitude-behavior combinations in terms of consideration and structure are reflected by effective leaders and to what extent these combinations may change under varying situational parameters.

This study was designed to explore the relationships between leader attitudes, leader behavior, and situational variables and the predictive usefulness of selected leadership measures. Civilian managers from a regional supply depot and ROTC student leaders from a local college indicated how they believe they should act toward their subordinates in terms of consideration and structure and what the relative importance of selected situational variables is to them. The superiors and subordinates of both groups described the actual behavior of the leaders in terms of consideration and structure. The findings of the

study imply that: (a) Neither the employee-centered nor the production-centered approach is sufficient, and a successful leader must exhibit a comparable amount of consideration and structure; (b) the collective contribution of leader behavior descriptions by supervisor and subordinates and by the leader must be considered in the prediction of leader effectiveness; and (c) self-perceived situational variables are significant indicators of leader effectiveness when investigated in a multiple correlation analysis. The relation of these findings to theories developed by Bass (1960) and Fiedler (1967) was discussed.

# CHAPTER I

## INTRODUCTION

Literature reviews of the research on leadership effectiveness point out the inconsistency of relationships among measures of leader behavior and performance criteria. Korman (1966) found very little evidence that leader behavioral and/or attitudinal variation are predictive of later effectiveness and/or satisfaction criteria. Rowland and Scott (1968) pointed out that there is little to suggest what an effective leader is and what might be done to increase his effectiveness. Fiedler (1967) feels that the effectiveness of leadership style is contingent upon the degree to which the leadership situation provides the leader with influence. This influence, in turn, is dependent upon task structure, leader position power, and leader-member relations.

Korman (1968) reviewed the research literature of various selective procedures in the prediction of leadership behavior in formal organizations. He also investigated whether such predictive studies could lead to an adequate theory of leadership behavior in the industrial situation. Korman concluded that "leadership ability" tests generally have not shown predictive validity and that little has been learned from selection research which can contribute to a theory of leadership behavior.

In addition to the research concerned with selective procedures, numerous studies over the past two decades have investigated "supervision" as a connecting link between job satisfaction and performance. For example, Ronan (1970) found it to be the major link between job satisfaction and personnel behaviors, along with some influence of age and education. These kinds of interrelationships appear to be complex and are possibly specific to a given organization.

## Dimensionality of Leadership

Part of the difficulty in defining and explaining interrelationships among leader attitude, behavior, and situational variables has been a lack of agreement about the important dimensions of leadership. Gibb (1969) has pointed out that the difficulties involved in using one of many forms of definition of the leader have focused attention not toward designated leaders but toward leader behavior occurring in groups. Acts of leadership may then be defined as the investigator wishes, and leaders can be identified by the relative frequency with which they engage in such acts. Empirical analyses of leader behavior have brought out a number of behavioral characteristics. Examples of definition appearing in the literature include: the single dimension of the supervisor's interpersonal orientation as measured by the Least Preferred Co-worker Scale (Fiedler, 1967); the single dimension of job-centered versus employee-centered supervision (Katz, Maccoby, and Morse, 1950);

the two dimensions of initiation of structure and consideration (Fleishman, Harris, and Burtt, 1955); and the four dimensions of support, interaction facilitation, goal emphasis, and work facilitation (Bowers and Seashore, 1966).

Gibb (1969), in a very thorough review of the status of the psychology of leadership, has concluded that the dimensions of consideration and structure (Halpin and Winer, 1952) may be regarded as two dimensions of leader behavior. The relatively parallel works of Bales (1953, task and social-emotional leadership differentiation) and Fiedler (1967, interpersonal judgments), together with evidence of truly independent dimensionality of these two behavior patterns (Fleishman and Peters, 1962; Halpin, 1956), have led Gibb to this conclusion.

In addition, Bass (1960) has used the dimensions of consideration and structure as the foundation of his interaction theory of leadership. According to Bass, if A's goal is to change B and this change is successfully accomplished, then effective leadership has occurred when B's change results in his satisfaction, reward, or goal attainment. The effective leader uses consideration to provide motivation and structure as a method to eliminate obstacles thwarting goal achievement.

These two major dimensions may be defined as follows:

> Consideration is the extent to which the leader, while carrying out his leader functions, is considerate of the men who are his followers. There is no implication, however, of laxity in the performance of duty, or of superficial human-relations behavior. Individual items indicate that the positive pole of this

> factor is characterized by warmth of personal relationships, mutual trust, readiness to explain actions, and willingness to listen to subordinates and allow them to participate in decision making (Gibb, 1969).
>
> Structure represents the extent to which the leader organizes and defines the relation between himself and his subordinates or fellow group members. Thus he defines the role he expects each member to assume, assigns tasks, plans ahead, establishes ways of getting things done and pushes for production. This dimension seems to emphasize overt attempts to achieve organizational goals (Fleishman and Harris, 1962).

When a consistent definition such as these two dimensions of consideration and structure has been used in the investigation of leader attitudes, behavior, and effectiveness, the results have varied; and, for the most part, the studies have been limited to the two-variable type. Korman (1966) made this criticism in reviewing the progress of research which focused on the leadership dimensions of consideration and structure. He emphasized the investigation of variables which may influence the relation of these two dimensions and various criteria, as there was " . . . almost no evidence on the predictive validity of 'Consideration' and 'Initiating Structure' nor on the kinds of situational moderators which might affect such validity."

Measurement of these two dimensions is obtained primarily by the Leadership Opinion Questionnaire, a judgment by the leader about how he should behave, and the Leader Behavior Description Questionnaire, a perceptive description by subordinates of the behavior of their superior. A more detailed description of these instruments is found in the second chapter.

Although the dependent variables in the studies concerning the dimensions of consideration and structure are varied, the rating variable is predominant. A few studies have used supervisory ratings, at least in part, as an organizational criterion. Skinner (1969) investigated among 21 foremen the form and degree of relationships between consideration, supervisory ratings, and three situational variables (department size, working conditions, and employee skill). Consideration was measured by the Supervisory Behavior Description (an industrial version of the Leader Behavior Description Questionnaire developed by Fleishman, 1953) and the Leadership Opinion Questionnaire. She did not show what the moderating effect of the situational variables was on the relationships between consideration, structure, and the selected criterion of supervisory ratings (Supervisory Appraisal Scale, completed by each foreman's immediate supervisor). Rather, the relation of the two dimensions was investigated separately, once with the ratings and once with each of the situational variables. Skinner found that consideration as perceived by subordinates was related negatively to supervisory ratings. No information was given on structure and its relation to supervisory ratings. No firm conclusions were drawn with regard to the situational criteria. Subordinate-perceived consideration showed no consistent trend with the situational variables. Self-perceived consideration scores and the situational variables (department size, working conditions, and employee skill) all clustered around zero.

Subordinate-perceived structure was essentially unrelated to the situational variables. Self-perceived structure was reported as showing some trend with working conditions because foremen in those departments with "fair" working conditions tended to feel they ought to behave in a more structured manner than the manner of those foremen in departments with "good" conditions.

Katzell (1968) looked at the organizational correlates of executive roles for approximately 146 male civilian executives of the Department of the Army. The Leader Behavior Description Questionnaire was used to provide data on the supervisor's behavior. A 3-scale rating form was filled out also by the immediate supervisor concerning the supervisor's comparison with contemporaries, standards, and his willingness to hire the man if he had the choice. Moderators included executive-role dimensions such as staffing, budgeting, long-range planning, and technical-versus-administrative activity. Supervisory structure was significantly related to long-range planning. Consideration was related significantly to the role dimension of shared-versus-individual effort. The authors pointed out that the number of significant correlations was not much beyond chance expectancy. It was found also that executives received higher ratings from their superiors when their roles more predominantly featured administrative as contrasted with technical activity. The authors felt this fact was not caused by a tendency to rate higher those who occupy higher-level jobs, since the

correlations of ratings and general schedule level were approximately zero. They speculated this result may signify that administrative behavior is perceived as a more critical requirement of the types of executive jobs studied.

The use of impartial observer ratings as a criterion was found in a study conducted by Greenwood and McNamara (1969), who measured the relationship between self-perceived behavior and measures of managerial success and the effect of various moderator variables upon leadership style. At the conclusion of a two-day assessment program, four observers evaluated the performance of each participant and agreed upon an overall rating of managerial potential. The results indicated that the variance of structure or consideration scores for a functional group remains relatively constant irrespective of supervisory level or function. In addition, the results tended to confirm previous studies which show little relationship between the Leadership Opinion Questionnaire as a predictor and various organizational success criteria. The authors pointed out two limitations of the study--population and criterion. They stressed the need for verification of their work in different types and sizes of organizations together with the use of an ultimate criterion.

Turnover and grievance rates are two organizational criteria used in the studies of Fleishman and Harris (1962) and Skinner (1969). Subordinates described the leader behavior of their foreman using the

Supervisory Behavior Description. The study indicated that there were significant relationships between the leader behavior of foremen and the labor grievances and employee turnover in their work groups. Generally low consideration and high structure went with high grievances and high turnover. Taken in combination, consideration was the dominant factor. With regard to grievances and turnover, leader behavior characterized by low consideration is more critical than behavior characterized by high structure. The authors indicated that foremen can compensate for high structure by increased consideration, but foremen displaying low consideration cannot compensate by decreasing their structuring behavior. Skinner (mentioned earlier) essentially corroborated this study. She pointed out that her study differed considerably from the earlier research as far as size, location, and type of work were concerned.

Parker (1963) looked at the organizational criteria of productivity (number of items processed per man-hour of production), order-filling errors, and pricing errors in a wholesale pharmaceutical company which operated eighty geographically decentralized warehouses throughout the United States. Consideration and structure, measured by the Leadership Opinion Questionnaire, were moderated by departmental size, wage rate, union status, community size, percentage of males, and group attitudes (similar to the work of Katzell, Barrett, and Parker, 1961). Supervisory practices and situational variables

were considered as work input whereas group performance and attitudes were output. His principal findings included:

(1) Supervisory behavior was related to worker attitudes toward supervision but was not related to group performance.

(2) Situational variables, including warehouse size and employment security, were related to group attitude toward supervision and group performance measures.

Oaklander and Fleishman (1964) looked at organizational stress, both interunit and intraunit, as organizational criteria. Sizes of the groups moderated leader behavior which was measured by the Leadership Opinion Questionnaire. The results showed that, for both types of hospitals (voluntary and government), higher consideration was related significantly to lower intraunit stress as hypothesized. In no case was the amount of consideration related to interunit stress. In a government hospital more structure (along with more consideration) was related to lower intraunit stress but was not related to interunit stress. However, in voluntary hospitals more structure was related to less interunit stress, as originally hypothesized. It was speculated that as organizations become larger, more supervisory structure is seen as supportive and helpful by subordinates, whereas with smaller units higher structure is seen as superfluous and threatening. Size was considered as a reasonable explanation.

House and Filley (1968) investigated the effects of leadership style with the moderating effect of upward hierarchical influence on the satisfaction of subordinate expectations and supervisory role obligations within two large research and development organizations. Leader behavior was measured by the Leader Behavior Description Questionnaire. Of six hypotheses tested, three findings stand out:

(1) Considerate behavior by the leader is not related to the amount of influence given to the leader by his subordinates.

(2) Considerate behavior by the leader is related positively to the satisfaction of the employee's expected role.

(3) Structured behavior of the leader is related positively to the satisfaction of the employee's expected role.

The interaction effects of consideration and structure have been referred to in the literature. Fleishman and Harris (1962), who were discussed earlier, mentioned these interaction effects. They found consideration to be the dominant factor when the two were taken in combination. The organizational criteria of grievances and turnover were highest in groups having foremen showing low consideration, regardless of the degree of structuring behavior shown by the same foremen. On the other hand, foremen showing high consideration had relatively low grievances and turnover, regardless of the amount of structuring engaged in. They stressed that although the curvilinear relationship

between leader behavior and criteria which they found may not be true for other criteria, research along these lines is necessary and that, in comparing one study with another, the authors need to specify the range of leader behavior involved in each study.

Fleishman and Simmons (1970) extended these findings to a large group of Israeli foremen. Consideration and structure were measured by the Supervisory Behavior Description Questionnaire. The effectiveness criterion was a supervisory evaluation of the foremen into three categories--"very satisfactory," "satisfactory," and "unsatisfactory." The leadership pattern which combined higher consideration and structure seemed to optimize the effectiveness criteria. Higher consideration appears to act as a moderator variable which allows the supervisor to achieve organizational goals. Higher structure is less effective and at times counterproductive, with a low level of consideration on the part of the supervisor.

Oaklander and Fleishman (1964) showed that although scores on consideration and structure are usually independent of each other, leaders rated high on both dimensions were more likely to be judged effective by their superiors and to have desirable effects on productivity and group morale.

House (1971) investigated the subordinate's satisfaction of role expectation to leader consideration and the moderating effect of consideration on the relationship between the satisfaction of role expectations

and structure. The Leader Behavior Description Questionnaire was used to measure leader behavior. The author found a significant and positive curvilinear relationship between structure and satisfaction in a refining company where a high consideration condition existed.

Finally, the study by Cummins (1970) was aimed at more clearly specifying the relationships between leader behavior and group performance by investigating possible intervening and moderating variables. Supervisory ratings of foremen were obtained on work-group productivity, quality, leader-member relations, and three dimensions of leader behavior: consideration, structure, and closeness of supervision. Ratings of task structure as defined by Fiedler (1967) were made by the production superintendent. The foremen completed the Leadership Opinion Questionnaire. Ratings of leader behavior (consideration and structure) and the self-perceived scores for these same dimensions were not positively related.

Only the analyses using superior ratings of behavior were reported in the study. Leader behavior-performance correlations were investigated for high and low levels of task structure, close supervision, leader-member relations, and general mental ability of the leader. Some of the results were:

(1) The less structured a task, the greater the need for directive leadership.

(2) The effectiveness of the leader's structure is dependent

on the leader's ideas (closeness of supervision and leader-member relations).

(3) A considerate leader was more effective when he enjoyed good leader-member relations.

Summary Statements about the Two Major Dimensions of Leadership

(1) The predictive validity of the instruments designed to measure consideration and structure has yet to be demonstrated with the inclusion of situational moderators.

(2) The disparity between studied populations and selected criteria makes any attempt at generalization difficult.

(3) All reported dependent variables are group indices, both subjective and objective.

(4) Only a few studies attempted to measure the disparities between the measure of the leader's own expectations and the measures of his actual behavior.

The fourth summary statement needs further amplification, as little attention has been given to the examination of differences of method in measuring leader behavior variables or to differential perception of leader behavior from different organizational positions. Graham and Oleno (1970) attribute some of the chaotic state of the literature to a questionable practice of regarding descriptions of leader behavior obtained from superiors and subordinates as equivalents and completely interchangeable indicants of leader behavior. This dilemma,

coupled with the self-descriptions found throughout the literature, led them to investigate the kind of systematic relationship between self-ratings and ratings by superiors, peers, and subordinates. In general, their literature reviews indicated that self-ratings had shown little relation to other ratings. But they noted that the evidence pertained mainly to job performance and not to ratings of leader behavior or evaluation of leaders. They felt since leader behavior, by its very nature, involves interpersonal relationships which cut across organizational levels, there is some reason to expect greater agreement among such ratings than would be found among ratings of job performance. Self-descriptions of consideration and structure were obtained from 47 first-level and 16 second-level supervisors of an insurance company. Ratings of these same leader behaviors were also obtained from 116 life insurance agents. The questionnaires received by superiors and subordinates were identical and yielded two dimensions of leader behavior which can be considered identical to those originally identified by Halpin and Winer (1957). Regardless of the level of supervision, they found no significant correlations between self-ratings and subordinate ratings of leader behavior. Correlations between agent and first-level supervisor ratings of second-level supervisors were substantial. These researchers concluded that self-ratings and subordinate ratings do not provide equivalent or interchangeable information about leader behavior or about evaluation of leaders.

Besco and Lawshe (1959) investigated the leader behavior of 29 production foremen in a large mid-western cereal-processing plant. They were interested in determining the relationships of self- and subordinate ratings of leader abilities with rated departmental effectiveness. The leader dimensions of consideration and structure were measured by a check list developed by Rambo (1958). Three members of higher management participated in the departmental effectiveness ratings. Multiple correlations were computed between departmental effectiveness and four pairs of leadership ratings involving superior and subordinate ratings of consideration and structure. The multiple correlations were not found to be significantly different from the two-variable correlations with the exception of superior and subordinate consideration. The authors concluded that no relationship was demonstrated between employee perceptions of leadership qualities of foremen and supervisory perceptions of leadership qualities of the same foremen.

Stogdill (1967) investigated the structure of organizational behavior. The subjects were 30 foremen and one manager of a manufacturing plant. Each supervisor described the leader behavior of his immediate superior, and each in turn was described by several subordinates. The Leader Behavior Description Questionnaire was the measurement instrument. In addition, the superiors and the subordinates of a supervisor rated or described the productivity, morale, and cohe-

siveness of the group he supervised. A factor analysis of the variables resulted in 14 dimensions of employee satisfaction, supervisory behavior and status, and group performance. Stogdill concluded that with very few exceptions the immediate superiors and the immediate subordinates of a supervisor agree in their descriptions and evaluations. That is, perceptions by superiors and subordinates of leader behavior variables tend to be loaded in the same direction on the same factor.

Rowland and Scott (1968) investigated the relationships between a number of leader variables and the criterion variables of work-group performance (a 10-point rating scale on the amount and quality of work done) and work-group satisfaction (measured with an experimental form of the semantic differential). The measure of leader consideration was obtained with the Leadership Opinion Questionnaire. Leader consideration as perceived by subordinates was measured through the use of adjectival sets of "My Supervisor." A significant, negative correlation was obtained between self-perceived and subordinate-perceived consideration. Self-perceived consideration was unrelated to any other measure of work-group satisfaction. Apparently, some of the leaders within the study were unwilling or unable to be as considerate with subordinates as they think they should be (or vice versa).

The results of Cummins (1970), reviewed earlier, should be reiterated here. He found that supervisory ratings of leader behavior (consideration and structure) and Leadership Opinion Questionnaire

scores for the same dimensions were not related positively.

King and Clingenpeel (1968) administered two questionnaires dealing with various attitudes and behaviors which supervisors might exhibit to three levels in a mid-western industrial firm. Subordinates, supervisors, and the supervisors' immediate superiors completed slightly different versions of the forms. They desired to measure the agreement between different observers of the supervisor's behavior. Their results indicated that there is a definite tendency for those supervisors who are given higher performance ratings (a) to have higher agreement between self-descriptions of their attitudes and behavior and the descriptions of their attitudes and behavior by their superior and subordinates and (b) to exist in work groups in which superiors and subordinates have higher degrees of agreement regarding the supervisor's job attitudes and behavior. In short, they feel enough significant correlations exist to indicate that the agreement among a supervisor, his superior, and his subordinates about what the supervisor does and thinks tends to be related to the supervisor's effectiveness. King and Clingenpeel feel that behavioral theorists in the leadership area could say that good supervisors place more emphasis upon getting across to their men and their superiors what their actions and beliefs are and what they are trying to accomplish--a concept not dissimilar to structure.

Holloman (1967) used the Supervisory Behavior Description to

obtain a measure of leader behavior of first-line supervisors, military and civilian, in a noncombat organization. Superior and subordinate perceptions of leadership were compared, and the following results were noted:

(1) The leadership role of the military supervisor is perceived by superiors to be lower in consideration and higher in structure than the leadership role of the civilian supervisor.

(2) Military and civilian superiors perceive the leadership role of the supervisor to be higher in consideration and higher in structure than the leadership role of military and civilian subordinates.

The few studies that have investigated the relations between the different types of leader behavior descriptions have not been able to offer conclusive argument on the extent to which these different types of descriptions are related to leader effectiveness. Holloman (1967) feels that the most important determinant of the effectiveness of a first-line supervisor is his ability to relate his behavior to the expectations of his superiors and subordinates. The expectations and desires of subordinates and superiors are a part of the overall organizational climate in which the leader must function. The influence of the situational variables comprising the organizational climate needs further support, and it is to this end we now direct our attention.

## Situational Variables and Leadership

A behavioristic approach to leadership has been developed over the past twenty years. Regardless of the labeling of the dimensions of leader behavior, a paramount consideration would be the relation of leadership to the dimensions of the group in which it occurs. Hemphill (1949) felt that a view of leadership which stresses the situational nature of the leader's behavior gives a sound behavioral foundation for practical programs in the selection and training of those who are to direct group activities.

Katzell (1961, 1962) has been a pioneer in the situational influences on effective supervisors. He proposed five possible parameters which research and theory suggest are likely to be particularly influential determiners of what kinds of organizational policies and practices will work best. Among those listed were: size, defined in terms of interdependent members in the group or organization; degree of interaction and interdependence of organization members; personalities of organization members, including their motivations and expectations; the degree of congruence or disparity between the goals of the organization and that of its employees; and finally, who in the organization has the necessary ability and motivation to take action to further its objectives.

O'Brien (1969) wrote of leadership in organizational settings. He feels that most theorists fail to define specifically the set of organi-

zational and personality variables they deal with and so are unable to describe fully the way in which such variables interact in determining organizational productivity and worker satisfaction.

Bavelas (1968) emphasizes that the case for the situational approach to leadership derives its strength from the fact that although organizations in general may exhibit broad similarities of structure and function, they also, in particular, show strong elements of uniqueness. In short, he feels it is necessary to define the leadership functions that must be performed in a given situation and to regard as leadership those acts which perform them.

Korman (1966) supports the situational approaches. He believes that future research should systematically conceptualize situational variance as it might relate to leader behavior. He cited the work of Vroom and Mann (1960) as a step in the right direction.

Vroom and Mann (1960) investigated the relation between authoritarianism and the measured attitudes and perceptions of subordinates, moderated by interdependence, amount of contact with the supervisor, and the size of the group. The authoritarianism of the station managers and night supervisors of a large delivery company was measured by responses to 25 items from Forms 40 and 45 of the F scale developed by Adorno (1950). The results indicated that small work groups with a good deal of interaction and interdependence had positive attitudes toward authoritarian leadership.

Fiedler's (1967) contingency model proposes an interaction of situational factors to leadership effectiveness. Variations in three organizational dimensions make the group conditions more or less favorable for a leader with a given attitudinal structure. These three factors are: the group atmosphere, or pattern of informal relationships between leaders and workers; the authority pattern, or the amount of power held by the leader; and the amount of structuring in the group task.

The most recent efforts in identifying the important situational parameters have been accomplished by Yukl (1969). He has attempted to develop a comprehensive measure of situational variables, being influenced in the selection of items by Hemphill's (1956) analysis of group dimensions, Shaw's (1963) factor analysis of task dimensions and Fiedler's (1967) leadership research. The most meaningful situational dimensions were identified as task difficulty, task structure, cooperation requirements, production pressure, leader power, and error cost.

## Study Objective and Hypotheses

It is still unknown what attitude-behavior combinations in terms of consideration and structure are reflected by effective leaders and to what extent these combinations may change under varying situational parameters. The present thesis reflects research recommendations in the literature and is designed to explore the relationships between

leader attitudes, leader behavior, and situational variables and the predictive usefulness of selected leadership measures.

The hypotheses under consideration are:

H1: The leader's self-perception of his leadership role influences his leadership effectiveness.

H1a: High consideration and high structure are optimal in the prediction of leadership effectiveness.

H2: The leader's behavior as perceived by subordinates is related to an evaluation of his effectiveness.

H3: The leader's behavior as perceived by his superior is related to an evaluation of his effectiveness.

H4: The agreement among the leader, his superior, and his subordinates about what the leader does and thinks is indicative of the leader's effectiveness.

H5: The leader's self-perception of six situational variables (task structure, task difficulty, leader power, error cost, cooperation requirements, and production pressure) influences his leadership effectiveness.

## Implications

If indeed, the self-perceived conception of leader behavior and

the perceptions by others of the same leader, in terms of consideration and structure, do not provide equivalent and interchangeable information, then the differential perception that has occurred must be considered in terms of the amount each contributes to predicting the effectiveness of the leader. The leader's behavior and attitude may be shaped through his perceptions of the situation in which he finds himself. A better understanding of the relative importance of the situation to the leader could help to explain the reasons for inconsistencies in the literature when one measure of leader behavior is considered alone in relation to an effectiveness criterion.

# CHAPTER II

# PROCEDURE AND METHODOLOGY

## The Instruments

### Leader Behavior Instruments

Three questionnaires were used to obtain psychologically meaningful descriptions of leader behavior and the leader situation. Each instrument was referred to in the Introduction. A more detailed description of each measure is given here.

The Leadership Opinion Questionnaire. The Leadership Opinion Questionnaire (Fleishman, 1960) yields self-perceived measures of two important dimensions of supervisory leadership, consideration, and structure. The dimension of structure reflects the extent to which an individual is likely to define and to structure his own role and those of his subordinates toward goal attainment. The dimension of consideration reflects the extent to which an individual is likely to have job relationships characterized by mutual trust, respect for subordinates' ideas, consideration of their feelings, and a certain warmth between supervisor and subordinates. This 40-item questionnaire is self-administered with completion time normally within 15 minutes. Responses are marked on 5-point scales (0-4). There are 20 items for each dimension per-

mitting a maximum score of 80 on each scale. Internal consistency reliabilities (as reported in the 1960 manual of instructions) range from .62 to .89 depending on the dimension and specific sample groups. Interrater reliability has ranged from .67 to .80. This questionnaire may be obtained from Science Research Associates, Inc., 259 East Erie Street, Chicago, Illinois.

The Leader Behavior Description Questionnaire. This measure (Halpin and Winer, 1957) allows the respondent to describe the behavior of designated leaders in a formal organization by indicating the frequency with which he perceives the leader engaging in each type of behavior. The questionnaire gives two measures of consideration and structure. Of the 40 items, 30 are scored (15 items per dimension). Responses are marked on 5-point scales ("always," "often," "occasionally," "seldom," "never") and scored 0-4 so that the possible range of scores on each dimension is 0 to 60. The estimated internal consistency reliability by the split-half method is .83 for the structure scores and .92 for the consideration scores when corrected by the Spearman-Brown formula. Normal completion time for the questionnaire is 10 minutes. As with the Leadership Opinion Questionnaire, no mention is made of the structure or consideration dimensions when the questionnaire is administered. The questionnaire may be obtained from the Bureau of Business Research, College of Commerce and Administration, The Ohio State University, Columbus, Ohio.

The Leader Situation Description Questionnaire. This instrument (Yukl, 1969) measures six meaningful dimensions of leadership situations as perceived by the leader. These dimensions are:

Task Difficulty: The number of highly developed skills required to perform the subordinates' tasks, the susceptibility of these tasks to error, and the general perceived difficulty of the tasks.

Task Structure: The number of ways in which the task can be performed and the degree of rapid performance feedback available to the leader. Highly structured tasks have little procedural variability and considerable performance feedback.

Cooperation Requirements: The amount of subordinate role interdependence and the degree to which the subordinates depend upon each other for successful completion of their tasks.

Production Pressure: The frequency and intensity of requests for faster decision-making or better group performance made by persons outside of the leader's group.

Leader Power: The capacity of the leader for rewarding subordinates, and the extent to which the leader is authorized to give orders and enforce their implementation.

Error Cost: The seriousness of performance errors for the organization.

The estimated completion time for this 52-item questionnaire is approximately 20 minutes. Most of the responses are on 6-point scales

("nearly always" to "hardly ever"). During instrument development, significant differences were obtained when t tests were calculated to determine whether the scales would discriminate between leaders known to differ with respect to the situational variables. The questionnaire may be obtained from Dr. Yukl at the University of Akron, Akron, Ohio 44304.

The Criteria

Separate criteria were used for the two substudies comprising this thesis. These indices included the Cadet Leader Evaluation Form and a simple evaluation check list containing three categories: unsatisfactory, satisfactory, and outstanding.

Cadet Leader Evaluation Form. This form is a composite evaluation measure using six characteristics from the Enlisted Efficiency Report (DA Form 2166-4, 1 Jul 70) and a placement scale (top to bottom fifth) from the U. S. Army Officer Efficiency Report (DA Form 67-6, 1 Jan 68). The exact content and format are reproduced in Appendix A. This evaluation form allows the rater to place the selected leader within the top to bottom fifth category for each of six leader characteristics: adaptability, attitude, initiative, leadership, responsibility, and duty performance. The data obtained in Substudy I revealed that the intercorrelations among the six characteristics are relatively high, a result which suggests a halo effect operating among the faculty raters (see Table 1). The internal consistency of these evalua-

tions was determined to be .92 by the Kuder-Richardson method. Interrater reliability for the evaluation form was .80.

Table 1. Correlations among Six Leader Characteristics: Rating Data on the Cadet Leader Evaluation Form

| Leader Characteristics | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| 1. Adaptability | | | | | | |
| 2. Attitude | .86 | | | | | |
| 3. Initiative | .87 | .85 | | | N = 46 | |
| 4. Leadership | .80 | .77 | .84 | | | |
| 5. Responsibility | .84 | .83 | .85 | .82 | | |
| 6. Duty Performance | .89 | .85 | .90 | .89 | .91 | |

Performance Evaluation Check List. This measure serves as one criterion of employee effectiveness in the organization which cooperated in data collection for Substudy II. It is completed and placed in the personnel records of each individual each fiscal year. Those managers receiving unsatisfactory or satisfactory scores receive no other rating. Although those individuals described as outstanding receive further in-depth evaluation as part of a top-management selection procedure, the documentation of "outstanding" rating was not available to the investigator for use as a more detailed criterion. The test-retest reliability (1970 versus 1971) for this particular performance evaluation was .49.

## Sampling Considerations

### Substudy I: ROTC Data

The subjects in Substudy I were 46 ROTC cadet tactical officers (in command positions down to and including squad leader) at the Georgia Institute of Technology. All the cadet tactical officers were seniors who had completed summer camp the previous year. Appendix B provides a detailed description of the cadet tactical officer selection procedure and duties.

### Substudy II: Civilian Data

The subjects in Substudy II were 95 general-schedule employees, grades 12 to 14, serving as division, branch, or section managers in a regional supply depot in the Atlanta area. Of this total, 16 were division chiefs, 37 were branch chiefs, and 42 were section chiefs. Included in the sample were 7 female managers. A stratified random-selection procedure was used to insure adequate cross-sectional coverage of all functional areas within the depot.

## Data Collection

The data collection for both substudies was accomplished in the following manner:

(1) Each leader was asked to complete the Leadership Opinion Questionnaire and the Leader Situation Description Questionnaire.

(2) The immediate subordinates of each leader were asked to complete the Leader Behavior Description Questionnaire on him or her.

(3) The immediate superior of each leader was asked to complete the Leader Behavior Description Questionnaire on him or her.

Substudy I: ROTC Data

The data for 18 of the subjects were collected following a field-training exercise at a nearby military installation in late April, 1971. The remainder of the sample was completed during late May and early June, 1971, at the college. All participants received a letter of instruction along with the appropriate questionnaire(s). Returns for the first group were delivered to the experimenter when the cadets returned to campus. Returns from the second group were submitted to the experimenter by campus mail.

Of the available cadet leaders, 70 per cent participated in the study. Questionnaires were returned by 23 superiors (50 per cent return rate). The number of subordinate scores received per cadet leader ranged from 2 to 8 depending on the size of the unit. These scores were averaged. Included in this study were 195 subordinate returns (96 per cent return rate).

All of the leader-measure questionnaires were completed by ROTC cadets. The cadet leader evaluations were made by cadre of the

college's ROTC detachment. Two cadre members who knew the cadet leader best (determined by the PMS) evaluated each cadet on the six leader characteristics. For all 46 cadet leaders, the evaluation score was a composite rating determined by summing the scores of both raters with a maximum of 60 total points.

Substudy II: Civilian Data

All the data were collected during the first three weeks of October, 1971. The appropriate questionnaire(s) and a letter of instruction were delivered to the individual via intradepot mail. Returns were delivered in a sealed envelope in care of the investigator to the chief of the employee-management relations branch, personnel division.

Of the managers selected, 50 per cent participated in the study. Questionnaires were returned by 40 per cent of the selected superiors and 78 per cent of the subordinates. The number of subordinate scores per leader subject ranged from 2 to 3. These scores were averaged.

## Analytic Design

Pearson product-moment correlations were used to show the relationships between self-perceived consideration and structure and the criteria, superior-perceived consideration and structure and the criteria, and subordinate-perceived consideration and structure and the criteria. They were also computed to show the interrelationships among the three measures of leader behavior. To explore the effect

of the situational variables on the relationship between the leader measures and the criteria, product-moment correlations were again computed for a dichotomy, high and low, on each of the self-perceived situational variables as measured by the Leader Situation Description Questionnaire.

Multiple correlational analyses were conducted to measure the combined contribution of various predictors as a means of explaining the variance in the criterion measures. These multiple correlations were computed between the performance evaluations and the following independent variables:

(1) Superior-perceived consideration, subordinate-perceived consideration, and self-perceived consideration;

(2) Superior-perceived structure, subordinate-perceived structure, and self-perceived structure;

(3) Self-perceived structure and self-perceived consideration;

(4) Subordinate-perceived consideration and subordinate-perceived structure;

(5) Superior-perceived consideration and superior-perceived structure;

(6) A combination of numbers three, four, and five;

(7) The six situational variables measured by the Leader Situation Description Questionnaire;

(8) Selected situational variables: task difficulty, cooperation

requirements, and leader power. (These situational variables seemed to be very important to both samples that were studied.)

The actual analysis of these data was done in part with the use of available computer programs FACTOR and REGRAN (Veldman, 1967; and Veldman, Baskett, and Mulaik, 1971). Cross-validation was not attempted because of the small sample size of both studies and the use of a different criterion for each substudy. A general comparison of results for both studies was made.

# CHAPTER III

## RESEARCH FINDINGS AND RELATED DISCUSSION

Data relevant to Substudy I: ROTC Data will be examined first, followed by the results of Substudy II: Civilian Data. The various hypotheses for both substudies will be discussed in numerical order with the exception of Hypothesis 1a which follows Hypothesis 4.

### Substudy I: ROTC Student Data

#### Summary Data on Leadership Measures

A summary of the scores and the response variability relating to the various leadership measures are shown in Table 2. The average ratings obtained from these student samples are similar to the norms reported in the literature. The means and standard deviations for the Leadership Opinion Questionnaire scales that were reported in the 1960 manual indicate generally that leaders tend to have slightly higher consideration scores than structure scores with standard deviations for both dimensions that range from 4 to 8-1/2. The means and standard deviations for the Leader Behavior Description Questionnaire (subordinate) are also very close to these same values as reported in the 1957 manual. No data were available for comparison of the Leader Behavior Description Questionnaire (superior) scores or the scores from the

Table 2. Summary Scores on the Leadership Measures: ROTC Student Data

| Leadership Measures[a] and Subscales | N | Mean Score | Standard Deviation |
|---|---|---|---|
| Leadership Opinion Questionnaire | | | |
| Self-Consideration | 37 | 51.87 | 7.52 |
| Self-Structure | 37 | 49.27 | 7.98 |
| Leader Behavior Description Questionnaire | | | |
| Superior Consideration | 23 | 41.96 | 4.51 |
| Superior Structure | 23 | 37.48 | 5.54 |
| Leader Behavior Description Questionnaire | | | |
| Subordinate Consideration | 44 | 39.07[b] | 6.52 |
| Subordinate Structure | 44 | 38.71[b] | 6.03 |
| Leader Situation Description Questionnaire | | | |
| Task Difficulty | 37 | 19.08 | 6.27 |
| Task Structure | 37 | 21.95 | 4.56 |
| Cooperation Requirements | 37 | 19.95 | 3.86 |
| Production Pressure | 37 | 17.62 | 3.64 |
| Leader Power | 37 | 18.38 | 4.69 |
| Error Cost | 37 | 12.70 | 3.49 |
| Composite Cadet Evaluation (both raters) | 46 | 44.87 | 11.22 |
| Adaptability | 46 | 7.57 | 2.05 |
| Attitude | 46 | 7.74 | 2.00 |
| Initiative | 46 | 7.30 | 2.04 |
| Leadership | 46 | 7.22 | 2.06 |
| Responsibility | 46 | 7.61 | 1.95 |
| Duty Performance | 46 | 7.44 | 1.88 |
| First Rater Total Evaluation | 46 | 22.89 | 6.05 |
| Second Rater Total Evaluation | 46 | 21.97 | 5.78 |

[a]Specific descriptions of measures are given in Chapter II. The Cadet Leader Evaluation Form is also reproduced in Appendix A.

[b]Mean score obtained from several subordinates of the cadet leader. The number of ratings ranged from two to eight.

Leader Situation Description Questionnaire. This is because other instruments have been used in the past to measure superior-perceived consideration and structure and the Leader Situation Description Questionnaire is a relatively new instrument with no published reports of further usage.

Perceived Leader Behavior and Leader Effectiveness

Hypotheses 1, 1a, 2, 3, and 4 focused on the effect of perceived leader behavior on the evaluation of a leader's effectiveness. Hypothesis 1 states that the leader's self-perception of his leadership role influences his leadership effectiveness. Hypothesis 1a predicts an optimum relation between high consideration and high structure and leadership effectiveness. Hypothesis 2 states that leader behavior perceived by subordinates is related to leader effectiveness. Hypothesis 3 states that leader behavior perceived by the superior is related to leader effectiveness. Hypothesis 4 combines the first three hypotheses and predicts that the amount of agreement among these leadership measures is indicative of leader effectiveness.

Table 3 provides the potential predictor-criterion relationships relating to the first three hypotheses. The consideration dimension of self-perceived leader behavior is related positively to the evaluation of the leader's effectiveness. Self-perceived structure did not show a significant relationship with rated leader effectiveness, as had been the case in most of the previous studies.

Table 3. The Relationship between Leadership Opinion Scores and Evaluations of Leader Effectiveness

| Measure of Leadership Opinion | r |
|---|---|
| Self-perceived Consideration | .33* |
| Self-perceived Structure | .17 |
| Subordinate-perceived Consideration | -.01 |
| Subordinate-perceived Structure | -.10 |
| Superior-perceived Consideration | .32 |
| Superior-perceived Structure | .36 |

*Significant at .05 level.

The perception of leader behavior by subordinates was not related significantly to the cadet leader evaluation. This finding may be due to the subordinates' limited exposure to the cadet leader. Most of the contact upon which their perceptions are based is limited to one or two drill periods (one hour each) per week of the academic year. Most studies in the literature report a significant, positive relation between subordinate consideration and ratings of leader effectiveness.

The correlations for superior-perceived consideration and structure are inconsistent with other published findings. In the present study, neither is correlated significantly with the criterion. The same explanation as offered for the subordinate-perceived behavior may also apply here. In the opinion of this investigator, however, the cadet officers had much closer contact which included planning conferences,

classroom attendance, and drill periods.

Hypothesis 1a stated that a high consideration and a high structure score give an optimal prediction of leadership effectiveness. An *a priori* comparison test (*t* ratio) based on an unequal *n* was used to test this hypothesis. The method used is described in Kirk (1969). None of the resulting *t*'s were significant; the null hypothesis of equal means was accepted. Hypothesis 1a for this substudy was not supported.

Table 4 shows the intercorrelations of the three descriptions of leader behavior. Self-description consideration and subordinate-description consideration are significantly related, as are self-description structure and superior-description structure. The insignificant relationship between subordinate and superior descriptions of leader behavior is consistent with other data (Besco and Lawshe, 1956). These findings tend to support Hypothesis 5. A multiple correlation analysis of the three leader measures is reported in this chapter on page 42. Table 4 follows on the next page.

Hypothesis 5 states that the leader's self-perception of six situational variables influences his leadership effectiveness. Table 5, on the next page, shows the results of this hypothesis when the situational variables are considered individually.

With the exceptions of perceived task difficulty and leader power, the more importance the cadet leader attaches to task structure,

Table 4. Intercorrelations of Self-, Superior, and Subordinate Descriptions of Leader Behavior

| | | Superior Description | | Subordinate Description | |
|---|---|---|---|---|---|
| | | C | S | C | S |
| Self-Description | C | -.28 | - | .44** | - |
| | S | - | .47* | - | .08 |
| Superior Description | C | | | .09 | - |
| | S | | | - | -.03 |

Note.--Superior-Self (n of 19); Superior-Subordinate (n of 23); Self-Subordinate (n of 35).
*Significant at .05 level.
**Significant at .01 level.

Table 5. Correlation of Situational Variables with Leader Evaluations

| Self-perceived Situational Variables | r |
|---|---|
| Task Difficulty | .20 |
| Task Structure | -.01 |
| Cooperation Requirements | -.18 |
| Production Pressure | -.06 |
| Leader Power | .40** |
| Error Cost | -.02 |

**Significant at .01 level; n of 48.

cooperation requirements, production pressure, and error cost, the greater the tendency for his evaluated leader effectiveness to be lower. It may be that the self-perceptions are acting in some way as suppres-

sor variables. Negative beta weights would offer support here, if a larger sample had permitted the use of moderated regression techniques.

In an attempt to see what the effect of these situational variables is on the relationships between the three description predictors and the criterion, the cadet leaders were dichotomized into high and low groups for each of the situational variables. This approach was taken by Cummins (1970) in an investigation of Fiedler's model of leadership effectiveness. His research focused on leader behavior-performance correlations for high and low levels of task structure, leader-member relations, close supervision, and general mental ability of the leader. The number of significant differences found in his study were about the same as the results of this study. Any further comparisons between the two studies are difficult as different measures of the situational variables and criteria were used. The product-moment correlations for the present study which were computed and tested for significance (Fisher's $z$) are tabled in Appendix C.

Most of the differences were insignificant. Under the condition of low task structure, the correlation between self-perceived structure and the criterion decreases significantly. Presumably, the leader feels that he can be less structured in employee relations. Under this same condition, the correlation of subordinate-perceived consideration with the criterion also decreases significantly. A significant increase in

the correlation between self-perceived structure and the criterion occurs under the condition of high-production pressure. There is also a significant decrease in subordinate-perceived structure under the condition of high-production pressure. Self-perceived structure increases significantly under the condition of low leader power. It may be that the leader feels he needs to augment his control of the situation.

Multiple Predictions of Leader Effectiveness

Multiple correlational analyses were conducted among various combinations of the leadership opinion and behavior measures and the leader evaluation data in an exploration of the combined contribution of the leadership scores in explaining criterion variance. Table 12 shows the results of these analyses. Only the leadership dimension of consideration and the six situational variables were statistically significant. These findings may be a function of the limited available sample size. Perhaps the most important values to note here are the values of $R^2$ which represent the amount of variance in the criterion scores and the standardized score, and beta which gives the relative importance of the individual variables. In the case of all three leader measures as predictors, 44 per cent of the variance was accounted for and 41 per cent was attributable to the perceived situational measures.

These figures become more meaningful when $R$ is compared with the $r$ for each of the leader measures (Table 13, page 43). This comparison allows us to determine whether a single leadership dimen-

Table 12. Multiple Correlations for Selected Student Leadership Scores and Situational Variables

| Cadet Leader Evaluation versus: | df | R | $R^2$ | β |
|---|---|---|---|---|
| Self-perceived Consideration | | | | .62 |
| Superior-perceived Consideration | 20 | .61* | .37 | .53 |
| Subordinate-perceived Consideration | | | | -.33 |
| Self-perceived Structure | | | | .02 |
| Superior-perceived Structure | 20 | .37 | .13 | .34 |
| Subordinate-perceived Structure | | | | -.09 |
| Self-perceived Consideration | 35 | .35 | .12 | .30 |
| Self-perceived Structure | | | | .12 |
| Subordinate-perceived Consideration | 42 | .10 | .01 | .04 |
| Subordinate-perceived Structure | | | | -.12 |
| Superior-perceived Consideration | 21 | .44 | .19 | .26 |
| Superior-perceived Structure | | | | .30 |
| Self-perceived Consideration | | | | .56 |
| Self-perceived Structure | | | | -.02 |
| Superior-perceived Consideration | 17 | .66 | .44 | .43 |
| Superior-perceived Structure | | | | .33 |
| Subordinate-perceived Consideration | | | | -.12 |
| Subordinate-perceived Structure | | | | -.06 |
| Task Difficulty | | | | .54 |
| Task Structure | | | | .00 |
| Cooperation Requirements | 31 | .64* | .41 | -.55 |
| Production Pressure | | | | -.04 |
| Leader Power | | | | .48 |
| Error Cost | | | | -.45 |
| Task Difficulty | | | | .21 |
| Cooperation Requirements | 34 | .54 | .29 | -.39 |
| Leader Power | | | | .44 |

*Significant at .05 level.

Table 13. Comparison of R and r for Substudy I Data[a]

| Cadet Leader Evaluation versus: | | r | R | diff |
|---|---|---|---|---|
| Self-perceived Consideration | | .33 | | |
| Subordinate-perceived Consideration | | -.01 | .61 | .01 |
| Superior-perceived Consideration | | .32 | | |
| Self-perceived Structure | | .17 | | |
| Subordinate-perceived Structure | | -.10 | .37 | NS |
| Superior-perceived Structure | | .36 | | |
| Self-perceived Consideration | | .33 | .35 | NS |
| Self-perceived Structure | | .17 | | |
| Subordinate-perceived Consideration | | -.01 | .10 | NS |
| Subordinate-perceived Structure | | -.10 | | |
| Superior-perceived Consideration | | .32 | .44 | NS |
| Superior-perceived Structure | | .36 | | |
| Leadership Opinion Questionnaire | (R) | .35 | | |
| Leader Behavior Description Questionnaire (Subordinate) | (R) | .10 | .66 | .05 |
| Leader Behavior Description Questionnaire (Superior) | (R) | .44 | | |
| Task Difficulty | | .20 | | |
| Task Structure | | -.01 | | |
| Cooperation Requirements | | -.18 | .64 | .05 |
| Production Pressure | | -.06 | | |
| Leader Power | | .40 | | |
| Error Cost | | -.02 | | |
| Task Difficulty | | .20 | | |
| Cooperation Requirements | | -.18 | .54 | .05 |
| Leader Power | | .40 | | |

[a] t tests used for comparisons among r, R, and R as developed by Saunders (1956).

sion or a combination of leadership dimensions best explains the variance in the performance evaluations. If the correlation of a single dimension is not significantly different from a multiple correlation containing that single dimension, then a considerable amount of time and money may be saved in developing an optimum predictor of leadership effectiveness. On the other hand, a combination of leadership measures may be necessary to predict leader effectiveness adequately.

In this study a combination of consideration scores is significantly different from any one individual consideration score. A combination of structure scores was not significantly different from superior-perceived structure. The Leadership Opinion Questionnaire total scores for consideration and structure did not differ from the self-perceived consideration score. A combination of superior-perceived consideration and structure was not significantly different from either superior-perceived consideration or superior-perceived structure. A combination of the Leadership Opinion Questionnaire and the Leader Behavior Description Questionnaire (superior and subordinate) was significantly different from any one of the three instruments alone. The six self-perceived situational variables were significantly different from any one situational variable or a combination of situational variables.

Summary of Findings for Substudy I: ROTC Student Data

Within the limits of sample size and criterion measures available, the findings of Substudy I were as follows:

(1) The consideration dimension of leader behavior as perceived by the leader (how he thinks he ought to behave) was related to rated leadership effectiveness.

(2) The leader behavior as described by his subordinate was not related significantly to his evaluated effectiveness, even when the moderating effect of the situational variables was considered.

(3) The leader's behavior as described by his superiors was not related significantly to his evaluated effectiveness.

(4) There exists some evidence that self- and superior descriptions of structure and self- and subordinate descriptions of consideration are in agreement.

(5) The investigation of the relationship between each of the self-perceived situational variables and the criterion revealed significance only for leader power.

(6) Little effect of high and low groupings of perceived situational variables on the three leader behavior measures was noted. Significant differences for self-perceived structure occurred with leader power, production pressure, and task structure. Subordinate-perceived structure was significantly different for high and low task structure.

(7) Multiple correlation analyses indicated that composite scores of consideration from self, superior, and subordinate, and all the situational variables taken together were related significantly to the leader's rated effectiveness.

(8) A greater proportion of the variance in evaluated leader effectiveness can be explained by combining self-, superior, and subordinate behavior descriptions than can be explained by any one individual measure. Of the six behavior descriptions involved here, self-perceived consideration, superior-perceived consideration and structure, and subordinate-perceived consideration, in that order, appear to contribute most.

## Substudy II: Civilian Employee Data

### Summary Data on Leadership Measures

Summary scores and response variability relating to the various leadership measures are shown in Table 14. The average ratings from these civilian employee samples are similar to the norms reported in the literature. Fleishman (1968) reported a mean consideration score for industrial foremen on the Leadership Opinion Questionnaire of 54.4 and a mean structure score of 53.3. Greenwood and McNamara (1969) found the mean consideration score for 593 super-

Table 14. Summary Scores on the Leadership Measures: Civilian Employee Data

| Leadership Measures and Subscales | N[a] | Mean Score | Standard Deviation |
|---|---|---|---|
| Leadership Opinion Questionnaire | | | |
| Self-Consideration | 48 | 56.85 | 6.59 |
| Self-Structure | 48 | 49.77 | 8.69 |
| Leader Behavior Description Questionnaire | | | |
| Superior Consideration | 37 | 43.14 | 9.17 |
| Superior Structure | 37 | 44.56 | 10.22 |
| Leader Behavior Description Questionnaire | | | |
| Subordinate Consideration | 74 | 41.84[b] | 10.14 |
| Subordinate Structure | 74 | 42.77[b] | 9.32 |
| Leader Situation Description Questionnaire | | | |
| Task Difficulty | 48 | 33.23 | 4.46 |
| Task Structure | 48 | 22.60 | 4.83 |
| Cooperation Requirements | 48 | 19.50 | 4.05 |
| Production Pressure | 48 | 17.33 | 4.18 |
| Leader Power | 48 | 23.63 | 4.04 |
| Error Cost | 48 | 21.83 | 3.71 |
| Employee Evaluation, 1971 | 94 | 2.79[c] | 1.99 |
| Employee Evaluation, 1970 | 94 | 1.98[c] | 1.72 |

[a] N reflects the amount of missing data from the 94 depot management personnel; 48 managers responded to the request for cooperation in this graduate thesis research.

[b] The means for subordinate consideration and subordinate structure represent the means of average consideration and average structure scores for each of the depot managers.

[c] Annual employee performance rating in organizational files; a satisfactory score was worth one point and an outstanding score was worth five points.

visory personnel (cross-sectional sample of seven divisions of a business concern) on the Leadership Opinion Questionnaire to be 52.0. The reported mean structure score was 49.6. The mean behavior scores for the ROTC cadet leaders and the civilian managers of the present study appear to be fairly equivalent. The self-perceived mean structure scores for the two groups are almost identical. Perceived task difficulty and error cost appear to be the only situational variables showing a large difference between the two studies, they being more important in the civilian work group.

Perceived Leader Behavior and Leader Effectiveness

The hypotheses for Substudy II are identical to those of Substudy I. The findings relating to these employee samples will be discussed in the same order as Substudy I.

The results of the first three hypotheses are shown in Table 15 (see page 49). The consideration and structure dimensions of self-perceived behavior showed practically no relation to the performance evaluation of the leader. These findings, in particular the lack of any relationship for the consideration, are inconsistent with other findings in the literature. It may be that the manager does not translate into action that considerate behavior which he feels he should.

The perception of leader behavior by subordinates was not related significantly to the performance evaluation. Most studies in the literature report a significant, positive relation between subordinate

consideration and superior ratings.

The relation of superior-perceived structure is consistent with other reported findings. Superior-perceived consideration, however, was not correlated significantly with the criteria as it usually is.

Table 15. The Relationship between Leadership Opinion Scores and Evaluations of Leader Effectiveness

| Measure of Leadership Opinion | r |
|---|---|
| Self-perceived Consideration | -.01 |
| Self-perceived Structure | -.06 |
| Subordinate-perceived Consideration | .21 |
| Subordinate-perceived Structure | .20 |
| Superior-perceived Consideration | .18 |
| Superior-perceived Structure | .39* |

*Significant at .05 level.

An *a priori* comparison test (*t* ratio) based on unequal *n* was used to test Hypothesis 1a as in Substudy I. The tests of significant difference between high and low groupings of self-perceived consideration and structure revealed two significant *t*'s (.05 level):

(1) High structure/high consideration grouping had a significantly higher mean performance score than a low structure/high consideration grouping.

(2) High structure/high consideration grouping had a significantly higher mean performance score than a low consideration/high structure grouping.

Comparable levels of consideration and structure would appear to be the best indicator of leader effectiveness.

Table 16 shows the intercorrelation of the descriptions of leader behavior.

Table 16. Intercorrelations of Self-, Superior, and Subordinate Descriptions of Leader Behavior

| | | Superior Description | | Subordinate Description | |
|---|---|---|---|---|---|
| | | C | S | C | S |
| Self-Description | C | .39* | - | .24 | - |
| | S | | -.01 | - | .03 |
| Superior Description | C | | | .45** | - |
| | S | | | | .23 |

Note. --Superior-Self (n of 25); Superior-Subordinate (n of 33); Self-Subordinate (n of 45).
*Significant at .05 level.
**Significant at .01 level.

Self-perceived consideration and superior-perceived consideration are correlated significantly as are subordinate-perceived consideration and superior-perceived consideration. The latter result has not been shown before in the literature. Apparently, superiors and subordinates are in agreement about what the leader does as far as consideration is concerned.

Situational Variables, Leader Behavior, and Leader Effectiveness

Table 17 shows the relation of the self-perceived situational variables and the performance evaluation. With the exception of leader

power and cooperation requirements, it appears again that the more importance the leader attaches to the four remaining situational variables, the greater the tendency for his evaluated effectiveness to be lower.

Table 17. Correlation of Situational Variables with Leader Evaluations

| Perceived Situational Variable | r |
|---|---|
| Task Difficulty | -.29* |
| Task Structure | -.05 |
| Cooperation Requirements | .06 |
| Production Pressure | -.05 |
| Leader Power | .26 |
| Error Cost | -.06 |

*Significant at .05 level; n of 48.

As in Substudy I, the civilian managers were then dichotomized into high and low groups for each of the situational variables to see what the effect might be on the relation between the three leader measures and the performance criterion. New product-moment correlations were computed and then tested for significant differences (Fisher's z) between the high and low groupings. The results are tabled in Appendix D. These comparisons were mostly insignificant. Under the condition of low task structure, the correlation between self-perceived consideration and the criterion decreases significantly. The more con-

siderate behavior he or she exhibits to subordinates under low task structure, the lower his or her evaluated performance. The only other significant change occurs under the condition of low leader power as self-perceived structure decreases significantly. Presumably, as the manager attempts to apply greater structure in a position of low leader power, he is unsuccessful, and this situation is reflected in the performance evaluation.

Multiple Predictions of Leader Effectiveness

Multiple correlational analyses were conducted among various combinations of the leadership opinion and behavior measures and the leader evaluation data in an exploration of the combined contribution of the leadership scores in explaining criterion variance. Table 24 (see the following page) shows the results of these analyses. The self-, subordinate, and superior scores on the dimension of structure were related significantly. Leader behavior as perceived by subordinates and leader behavior as perceived by superiors were also related significantly to the annual employee evaluations. The six situational variables as measured by the Leader Situation Description Questionnaire were significantly predictive of leader effectiveness.

Here again, the value $R^2$ in Table 24 shows that all three leader behavior measures as predictors account for 23 per cent of the criterion variance and that all six situational variables account for 23 per cent of the criterion variance.

Table 24. Multiple Correlations for Selected Civilian Leadership Scores and Situational Variables

| Performance Evaluation versus: | df | R | $R^2$ | $\beta$ |
|---|---|---|---|---|
| Self-perceived Consideration | | | | -.11 |
| Superior-perceived Consideration | 34 | .26 | .07 | .15 |
| Subordinate-perceived Consideration | | | | .17 |
| Self-perceived Structure | | | | -.06 |
| Superior-perceived Structure | 34 | .41* | .17 | .36 |
| Subordinate-perceived Structure | | | | .12 |
| Self-perceived Consideration | 46 | .06 | .004 | -.01 |
| Self-perceived Structure | | | | -.06 |
| Subordinate-perceived Consideration | 72 | .23* | .05 | .14 |
| Subordinate-perceived Structure | | | | .11 |
| Superior-perceived Consideration | 35 | .39* | .15 | -.02 |
| Superior-perceived Structure | | | | .40 |
| Self-perceived Consideration | | | | -.18 |
| Self-perceived Structure | | | | -.06 |
| Superior-perceived Consideration | 31 | .48 | .23 | -.12 |
| Superior-perceived Structure | | | | .50 |
| Subordinate-perceived Consideration | | | | .35 |
| Subordinate-perceived Structure | | | | -.11 |
| Task Difficulty | | | | -.36 |
| Task Structure | | | | -.32 |
| Cooperation Requirements | 42 | .48* | .23 | .15 |
| Production Pressure | | | | -.14 |
| Leader Power | | | | .38 |
| Error Cost | | | | .05 |
| Task Difficulty | | | | -.28 |
| Cooperation Requirements | 45 | .38* | .15 | .06 |
| Leader Power | | | | .24 |

*Significant at .05 level.

Table 25. Comparison of R and r for Civilian Employee Data[a]

| Performance Evaluation versus: | | r | R | diff |
|---|---|---|---|---|
| Self-perceived Consideration | | -.01 | | |
| Subordinate-perceived Consideration | | .21 | .26 | NS |
| Superior-perceived Consideration | | .18 | | |
| Self-perceived Structure | | -.06 | | |
| Subordinate-perceived Structure | | .20 | .41 | NS |
| Superior-perceived Structure | | .39 | | |
| Self-perceived Consideration | | -.01 | .06 | NS |
| Self-perceived Structure | | -.06 | | |
| Subordinate-perceived Consideration | | .21 | .23 | NS |
| Subordinate-perceived Structure | | .20 | | |
| Superior-perceived Consideration | | .18 | .39 | NS |
| Superior-perceived Structure | | .39 | | |
| Leadership Opinion Questionnaire | (R) | .06 | | |
| Leader Behavior Description Questionnaire (Subordinate) | (R) | .23 | .48 | .05 |
| Leader Behavior Description Questionnaire (Superior) | (R) | .39 | | |
| Task Difficulty | | -.29 | | |
| Task Structure | | -.05 | | |
| Cooperation Requirements | | .06 | .48 | .05 |
| Production Pressure | | -.05 | | |
| Leader Power | | .26 | | |
| Error Cost | | -.06 | | |
| Task Difficulty | | -.29 | | |
| Cooperation Requirements | | .06 | .38 | .05 |
| Leader Power | | .26 | | |

[a] t tests used for comparisons among r, R, and R as developed by Saunders (1956).

As in Substudy I, $\underline{R}$ and $\underline{r}$ for each of the leader measures were compared in order to determine whether a single leadership dimension or a combination of dimensions best explains the variance in the performance evaluations. The results are shown in Table 25 (see preceding page). A combination of consideration scores was not significantly different from subordinate- or superior-perceived consideration. A combination of structure scores was not significantly different from superior-perceived structure. A combination of the Leadership Opinion Questionnaire and Leader Behavior Description Questionnaire (both by superior and subordinates) was significantly different from any one of the three alone. The six self-perceived situational variables were significantly different from any one variable or combination of variables.

Summary of Findings for Substudy II: Civilian Employee Data

Within the limits of sample size and criterion measures available, the findings of Substudy II were as follows:

(1) Neither the structure nor the consideration dimension of self-perceived leader behavior showed a significant relation to leader effectiveness.

(2) The leader behavior as described by subordinates was not related significantly to the performance evaluation.

(3) The leader behavior dimension of structure as perceived by the superior is related significantly

to evaluated effectiveness.

(4) There exists some evidence that self- and superior descriptions of consideration and subordinate and superior descriptions of consideration are in agreement.

(5) The investigation of the relationship between each of the self-perceived situational variables and the criterion shows only the correlation of task difficulty as significant.

(6) Little effect of high and low groupings of perceived situational variables on the three leader behavior measures was noted.

(7) Multiple correlation analyses indicated that composite structure scores, leader behavior as perceived by superiors, leader behavior as perceived by subordinates, and a composite of situational variables were significantly indicative of the leader's effectiveness.

(8) A greater proportion of the variance in evaluated leader effectiveness can be explained by combining self-, superior, and subordinate behavior descriptions than can be explained by any one individual measure. Of the six behavior dimensions involved, superior-perceived structure, subordinate-perceived

consideration, and self-perceived consideration, in that order, appear to contribute most.

## General Comparison

Substudy I and Substudy II were done as identically as the investigator could make them. They differ in two important aspects. First, they represent two totally different populations with respect to age, education, experience, job description, leader situation, and so on. Second, the criteria used for the studies were different in terms of format, descriptive components, and assigned numerical weights (see Chapter II).

With this in mind, only general parallels between the two substudies are described below:

(1) The leader behavior as described by his subordinates was not related significantly to the leader's evaluated effectiveness.

(2) The relationships between the individual self-perceived situational variables and leader effectiveness were generally insignificant. When investigated together, however, they are a significant predictor of leader effectiveness.

(3) A significantly greater proportion of the variance can be explained by combining self-, superior, and

subordinate behavior descriptions than can be explained by any one of these three individual measures.

# CHAPTER IV

## CONCLUSIONS AND RECOMMENDATIONS

A number of the major findings of both Substudy I and Substudy II suggest important implications for research and application of leader attitudes and behavior.

The collective contribution of leader behavior descriptions by superiors and subordinates, and by the leader, account for more variance in the leader effectiveness ratings than in any single measure of leader behavior. Future research should take this finding into account. The results of this study and others (for example, Besco and Lawshe, 1959; Greenwood and McNamara, 1969; and Graham and Oleno, 1970) have shown there is not always a significant relationship between these measures when treated separately.

The self-perceived situational variables (task difficulty, task structure, cooperation requirements, production pressure, leader power, and error cost) taken together are significant indicators of leader effectiveness. This result is in accord with Fiedler's theory which proposes an interaction of situational factors to leadership effectiveness. Variations in leader power, task structure, and informal relationships between leaders and subordinates make the group conditions relatively favorable for a leader with a given attitudinal position. The

failure to find Fiedler's predicted changes in leader structure and leader consideration with changes in the situational favorableness may be due to the instrument used in this study. It may not have obtained the optimal equivalency among the various situational components to allow detection of such changes.

The description of leader behavior in terms of consideration and structure by subordinates provided mixed results in the two organizational settings. For the student ROTC cadet data, subordinate description was unrelated to an evaluation of the student-leader effectiveness. In Substudy II, among a civilian work force in which subordinates had worked with their supervisors a considerable amount of time, the combination of consideration and structure was correlated significantly with leader effectiveness. Apparantly, subordinates are viewing the behavior in the same manner as the leaders' superiors. A unique longitudinal study by Rosen (1969) would appear to be in a direction toward which future research involving subordinate perceptions should head. Rosen investigated the extent of the supervisor's direct impact through the subordinate-perceived behavioral dimensions of structure and consideration. His data suggested that these perceived leadership variables influence the development of within-group agreement on the leader, which, in turn, has a positive impact on productivity and is related positively to group attraction. One practical application of subordinate-perceived behavior would be to allow subordinates in a given organiza-

tion to indicate how they believe their superior should act in terms of consideration and structure. A leader whose attitudes are more congruent with the subordinate attitudes might be more appropriate in the leadership assignment.

The leader's attitudes relating to one's own behavior may not be indicative of his or her effectiveness as a leader. When the Leadership Opinion Questionnaire was used singly in correlational analyses, the literature supports this observation at least for the structure dimension. Yet the prevailing argument is that consideration and structure are optimum indicators of highest rated effectiveness when orthogonal comparisons of these two dimensions are made. Fleishman (1962, 1970) and others mentioned in the literature review offer support for this hypothesis. The findings of Substudy II appear to support this earlier work. The implication is that neither the employee-centered nor the production-centered approach is sufficient. A successful leader must exhibit a comparable amount of each dimension.

This conclusion is in keeping with the theory developed by Bass (1960). In brief, Bass believes " . . . leadership is accomplished by changing the goals of others or by providing ways for others to obtain their rewards and as a result leader behavior usually focuses on motivating others or initiating means for others to cope with their needs." Bass feels that a single dimension can be used to describe how leaders vary in their efforts to motivate others. That dimension is considera-

tion. When the basic difficulties or resistance to change is caused by a lack of ability and not by a lack of motivation, then the leader uses another dimension--structure--to bring about the more rewarding or effective behavior. It seems reasonable to say that a leader who has strong, positive attitudes about both these dimensions would be prepared to handle any contingency successfully.

The present study focused on the relationships between leader attitudes, leader behavior, and the situational variables with which the leader functions. The study has dealt with both ends of the leader spectrum rather than individuals in the midrange. Larger samples would have enabled the use of moderated regression techniques in the data analysis.

The criterion dilemma continues to plague the investigation of predictor-criterion relationships in the area of leadership effectiveness. In the present study it was not feasible to introduce more comprehensive indices of leader performance into the established organizational setting (college ROTC unit and federal supply depot).

The continuation of the work contained in this thesis should include the investigation of the importance of the situational variables to the subordinates and superiors of the specified leaders. The amount of agreement or disparity between these two groups might offer an explanation of the problems the leader faces when attempting to maintain a balance between the demands of superiors and subordinates. A second

consideration involves the methodology involved in this thesis. An additional step would be to ask each subordinate to describe the way in which the leader behaves toward him or her, in lieu of describing the leader's behavior toward the whole group. It may be that with some subordinates, there is little or no interaction at all, hence the low correlations in this and past studies.

# APPENDIX A

## Cadet Leader Evaluation Form

# CADET LEADER EVALUATION FORM

NAME_____ BRANCH_____

| | Top | Second | Middle | Fourth | Bottom Fifth |
|---|---|---|---|---|---|
| ADAPTABILITY | | | | | |
| ATTITUDE | | | | | |
| INITIATIVE | | | | | |
| LEADERSHIP | | | | | |
| RESPONSIBILITY | | | | | |
| DUTY PERFORMANCE | | | | | |

1. This evaluation is to be used for experimental purposes and has no influence whatsoever on any personnel action for the rated individual.
2. Compare this ROTC cadet leader with all other ROTC cadet leaders you have known well enough to rate.
3. Place an X in the appropriate box for each of the six categories.
4. General description of leader characteristics:
   a. ADAPTABILITY - Cadet's ability to be flexible and adjust to changing work demands.
   b. ATTITUDE - The degree to which the cadet displays the cooperativeness, sincerity, and interest necessary to maintain proper relations with subordinates and superiors.
   c. INITIATIVE - Cadet's energetic application and attention to duty.
   d. LEADERSHIP - Positive manner and confidence in decision making; ability to influence or direct the actions of others while maintaining their loyalty; ability to plan, organize, coordinate, and assign work; aggressiveness.
   e. RESPONSIBILITY - Cadet's integrity and willingness to accept responsibility for own actions and those under his charge.
   f. DUTY PERFORMANCE - Cadet's overall duty performance and skill.

# APPENDIX B

## Cadet Tac Officer Selection, Responsibilities, and Duties

## Cadet Tac Officer Selection, Responsibilities, and Duties

Cadet tactical officers are MS IV ROTC students who have completed the advanced summer camp training (a mandatory prerequisite for commission). Performance during leadership laboratory, summer training performance evaluation, and overall evaluation by the cadre determine the rank of the cadet during his final year at the college. A listing of the duties and responsibilities of the cadet tactical officers selected for this study follows.

### COMMANDER

MISSION.

1. To develop within each cadet the maximum leadership potential.
2. To command all subordinate units assigned to the ROTC Command.
3. To plan, organize, direct, coordinate, and control the Command.

FUNCTIONS.

1. Assume command of the ROTC Command and organize it in accordance with the Standard Operating Procedure for Cadet Command.
2. Maintain high standards of appearance and military courtesy throughout the Command.
3. Instill and maintain a high Esprit de Corps within the Command.
4. Insure that all Command elements operate efficiently.
5. Brief official visitors on the mission, organization, and activities of the Cadet Command.
6. Recommend the elimination from the program of substandard cadets.

## COMPANY SENIOR TAC

MISSION.

To plan, organize and direct and control all company forces and operations in accordance with Command policies and directives.

FUNCTIONS.

1. Insure that his company is organized effectively and that training is being conducted properly.

2. Insure through the use of the Chain of Command that every cadet is frequently inspected and that appropriate promotions and awards are granted to personnel of his company.

3. Recommend to the Deputy Commander disciplinary cases who cannot be adequately handled within Company resources.

## COMPANY ASSISTANT TAC

MISSION.

1. Provide personnel information to the Command Personnel Officer.

2. Insure that roll is taken and that the A & E Cards are promptly posted in the Command office.

FUNCTIONS.

1. Assist the Senior TAC on the drill field.

2. Coordinate with the Command Staff as necessary.

3. Perform any additional duties assigned by the Senior TAC.

## PLATOON TAC

MISSION.

Directly control all Platoon operations and training.

FUNCTIONS.

1. Perform all duties assigned to him by the Company TAC.

2. Establish standards of conduct and performance and strive to see that they are met by those under his command.

3. Serve as an example for the basic cadet under him to encourage them to enter the Advanced Program.

4. Recommend appropriate promotions and awards for deserving cadets.

5. Refer disciplinary cases which cannot be handled within Platoon resources.

6. Continuously check the accuracy of personnel assignments against the Company TOE and take corrective action through channels when errors occur.

## ASSISTANT PLATOON TAC

MISSION.

Assume the duties and responsibilities of the Platoon TAC in his absence.

FUNCTIONS.

1. Assist the Platoon TAC in supervising training.

2. Give special instruction as assigned by the Platoon TAC to any individual who may be below the standards established.

3. Perform any additional duties assigned to him by the Platoon TAC.

## SQUAD TAC

MISSION.

1. Is in direct control of all squad operations and training.

2. Exercise primary leadership by example and by knowing each member of his squad.

FUNCTIONS.

1. Fully explain all the aspects of drill and ceremonies (in accordance with FM 22-5) which are being presented in each training period.

2. Insure that his men are properly trained in the required training subjects.

3. Conduct those inspections necessary to insure that appearance is acceptable.

4. Command and supervise squad members during periods of instruction, as appropriate.

5. Recommend appropriate promotions and awards for deserving cadets.

6. Refer to the Platoon TAC those disciplinary cases he can't solve.

7. Record all absentees based on personal knowledge of all squad members.

8. Continuously inspect squad members for compliance with standards of performance, appearance and bearing.

9. Continuously correct deficiencies noted among squad members. Recognize and commend good performance at all times.

10. Provide leadership assignments to squad members.

11. Identify outstanding MS I cadets for rapid promotions.

# APPENDIX C

Leader Behavior-Performance Correlations for Different Levels of Perceived Situational Variables (Tables 6 through 11, Student ROTC Data)

Table 6. Leader Behavior-Performance Correlations for Different Levels of Task Difficulty

| Correlation of: Cadet Leader Evaluation versus- | High Task Difficulty | (N) | Low Task Difficulty | (N) | diff |
|---|---|---|---|---|---|
| Self-perceived Consideration | .25 | (18) | .47 | (19) | NS |
| Self-perceived Structure | .11 | | .06 | | NS |
| Subordinate-perceived Consideration | .21 | (17) | -.16 | (17) | NS |
| Subordinate-perceived Structure | -.10 | | -.19 | | NS |
| Superior-perceived Consideration | -.14 | (11) | .20 | (8) | NS |
| Superior-perceived Structure | .56 | | .61 | | NS |

Table 7. Leader Behavior-Performance Correlations for Different Levels of Task Structure

| Correlation of: Cadet Leader Evaluation versus- | High Task Structure | (N) | Low Task Structure | (N) | diff |
|---|---|---|---|---|---|
| Self-perceived Consideration | .39 | (19) | .29 | (18) | NS |
| Self-perceived Structure | .48 | | -.07 | | .05 |
| Subordinate-perceived Consideration | .35 | (19) | -.25 | (16) | .05 |
| Subordinate-perceived Structure | -.21 | | -.09 | | NS |
| Superior-perceived Consideration | .13 | (9) | .46 | (10) | NS |
| Superior-perceived Structure | .31 | | .72 | | NS |

Table 8. Leader Behavior-Performance Correlations for Different Levels of Cooperation Requirements

| Correlation of: Cadet Leader Evaluation versus - | High Cooperation Requirements | (N) | Low Cooperation Requirements | (N) | diff |
|---|---|---|---|---|---|
| Self-perceived Consideration | .42 | (18) | .23 | (19) | NS |
| Self-perceived Structure | .06 | | .34 | | NS |
| Subordinate-perceived Consideration | .24 | (18) | -.22 | (17) | NS |
| Subordinate-perceived Structure | -.15 | | -.12 | | NS |
| Superior-perceived Consideration | .40 | (11) | .10 | (8) | NS |
| Superior-perceived Structure | .61 | | .59 | | NS |

Table 9. Leader Behavior-Performance Correlations for Different Levels of Production Pressure

| Correlation of: Cadet Leader Evaluation versus - | High Production Pressure | (N) | Low Production Pressure | (N) | diff |
|---|---|---|---|---|---|
| Self-perceived Consideration | .29 | (19) | .40 | (18) | NS |
| Self-perceived Structure | .59 | | -.26 | | .01 |
| Subordinate-perceived Consideration | .01 | (17) | .09 | (18) | NS |
| Subordinate-perceived Structure | -.40 | | .16 | | .05 |
| Superior-perceived Consideration | .12 | (12) | .45 | (7) | NS |
| Superior-perceived Structure | .49 | | .76 | | NS |

Table 10. Leader Behavior-Performance Correlations for Different Levels of Leader Power

| Correlation of: Cadet Leader Evaluation versus- | High Leader Power | (N) | Low Leader Power | (N) | diff |
|---|---|---|---|---|---|
| Self-perceived Consideration | .36 | (18) | .41 | (19) | NS |
| Self-perceived Structure | -.40 | | .38 | | .01 |
| Subordinate-perceived Consideration | .16 | (17) | .01 | (18) | NS |
| Subordinate-perceived Structure | .11 | | -.28 | | NS |
| Superior-perceived Consideration | .17 | (9) | .13 | (10) | NS |
| Superior-perceived Structure | .06 | | .52 | | NS |

Table 11. Behavior-Performance Correlations for Different Levels of Error Cost

| Correlation of: Cadet Leader Evaluation versus- | High Error Cost | (N) | Low Error Cost | (N) | diff |
|---|---|---|---|---|---|
| Self-perceived Consideration | .19 | (18) | .43 | (19) | NS |
| Self-perceived Structure | .21 | | .11 | | NS |
| Subordinate-perceived Consideration | -.01 | (17) | -.01 | (18) | NS |
| Subordinate-perceived Structure | -.23 | | -.05 | | NS |
| Superior-perceived Consideration | .55 | (9) | .14 | (10) | NS |
| Superior-perceived Structure | .65 | | .46 | | NS |

# APPENDIX D

Leader Behavior-Performance Correlations for Different Levels of Perceived Situational Variables (Tables 18 through 23, Civilian Data)

Table 18. Leader Behavior-Performance Correlations for Different Levels of Task Difficulty

| Correlation of: Performance Evaluation versus- | High Task Difficulty | (N) | Low Task Difficulty | (N) | diff |
|---|---|---|---|---|---|
| Self-perceived Consideration | -.10 | (24) | .20 | (24) | NS |
| Self-perceived Structure | -.26 | | -.13 | | NS |
| Subordinate-perceived Consideration | .08 | (23) | .26 | (22) | NS |
| Subordinate-perceived Structure | -.17 | | .26 | | NS |
| Superior-perceived Consideration | .27 | (15) | .44 | (10) | NS |
| Superior-perceived Structure | .21 | | .12 | | NS |

Table 19. Leader Behavior-Performance Correlations for Different Levels of Task Structure

| Correlation of: Performance Evaluation versus- | High Task Structure | (N) | Low Task Structure | (N) | diff |
|---|---|---|---|---|---|
| Self-perceived Consideration | .30 | (24) | -.31 | (24) | .05 |
| Self-perceived Structure | .02 | | -.07 | | NS |
| Subordinate-perceived Consideration | .37 | (22) | .04 | (23) | NS |
| Subordinate-perceived Structure | .29 | | -.08 | | NS |
| Superior-perceived Consideration | .39 | (14) | .27 | (11) | NS |
| Superior-perceived Structure | .49 | | -.08 | | NS |

Table 20. Leader Behavior-Performance Correlations for Different Levels of Cooperation Requirements

| Correlation of: Performance Evaluation versus- | High Cooperation Requirements | (N) | Low Cooperation Requirements | (N) | diff |
|---|---|---|---|---|---|
| Self-perceived Consideration | .10 | (24) | -.13 | (24) | NS |
| Self-perceived Structure | -.22 | | .06 | | NS |
| Subordinate-perceived Consideration | .21 | (22) | .24 | (23) | NS |
| Subordinate-perceived Structure | .15 | | .03 | | NS |
| Superior-perceived Consideration | .39 | (15) | .25 | (10) | NS |
| Superior-perceived Structure | .39 | | .06 | | NS |

Table 21. Leader Behavior-Performance Correlations for Different Levels of Production Pressure

| Correlation of: Performance Evaluation versus- | High Production Pressure | (N) | Low Production Pressure | (N) | diff |
|---|---|---|---|---|---|
| Self-perceived Consideration | -.19 | (24) | .12 | (24) | NS |
| Self-perceived Structure | -.10 | | .00 | | NS |
| Subordinate-perceived Consideration | .26 | (24) | .19 | (21) | NS |
| Subordinate-perceived Structure | .28 | | -.13 | | NS |
| Superior-perceived Consideration | .37 | (9) | .33 | (16) | NS |
| Superior-perceived Structure | .43 | | .17 | | NS |

Table 22. Leader Behavior-Performance Correlations for Different Levels of Leader Power

| Correlation of: Performance Evaluation versus- | High Leader Power | (N) | Low Leader Power | (N) | diff |
|---|---|---|---|---|---|
| Self-perceived Consideration | -.11 | (24) | .02 | (24) | NS |
| Self-perceived Structure | -.11 | | .12 | | NS |
| Subordinate-perceived Consideration | .20 | (23) | .20 | (22) | NS |
| Subordinate-perceived Structure | .28 | | -.27 | | NS |
| Superior-perceived Consideration | .53 | (12) | .20 | (13) | NS |
| Superior-perceived Structure | .35 | | .12 | | NS |

Table 23. Leader Behavior-Performance Correlations for Different Levels of Error Cost

| Correlation of: Performance Evaluation versus- | High Error Cost | (N) | Low Error Cost | (N) | diff |
|---|---|---|---|---|---|
| Self-perceived Consideration | .03 | (24) | -.05 | (24) | NS |
| Self-perceived Structure | -.02 | | -.07 | | NS |
| Subordinate-perceived Consideration | .39 | (21) | .03 | (24) | NS |
| Subordinate-perceived Structure | .20 | | -.03 | | NS |
| Superior-perceived Consideration | .41 | (10) | .19 | (15) | NS |
| Superior-perceived Structure | .38 | | .04 | | NS |

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